

****NOT FOR PUBLICATION****

**UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY**

JVI, INC.,

Plaintiff,

v.

TRUCKFORM INC. and JULES
TISCHLER,

Defendants.

:
:
:
:
:
:
:
:
:
:
:
:

Civ. No. 11-6218 (FLW)

OPINION

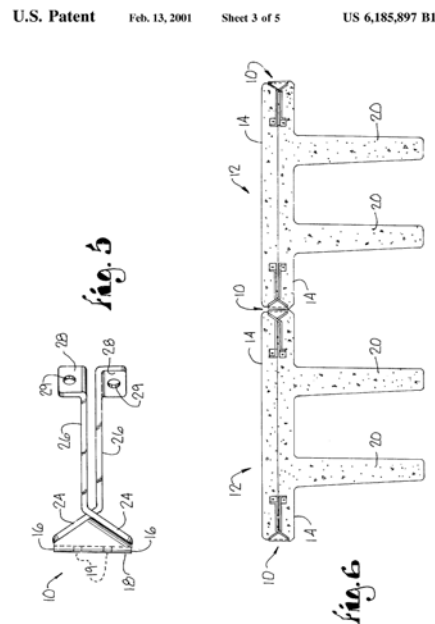
In this claim construction Opinion, the Court construes a patent for a once-revolutionary “flange connector” that connects pre-formed concrete blocks or “flanges.” After reviewing the parties’ substantial briefing and exhibits, and holding a full-day Markman hearing, the Court finds that several of the patent’s claim do not require construction and that construction of the remaining contested claim terms is relatively straightforward, albeit lengthy to describe. Accordingly, the Court construes the claims as set forth herein.

I. BACKGROUND

The patent that is the subject of this claim construction dispute, U.S. Patent ’6,185,897 (“897 Patent”), was originally filed by Patentees Stephen R. Johnson and Charles Magnesio on June 16, 1999. When the patent was filed, the precast concrete

construction industry utilized what the patent refers to as “flange connectors”¹ to adjoin adjacent concrete structural members, however, the flange connectors used, and the surrounding concrete, often buckled or broke. The precast concrete structural members that the flange connectors adjoin are referred to as precast blocks or flanges. These structural members are poured in an off-site manufacturing facility and subsequently transported to a construction site for use, often in the construction of parking lot garages.

The type of flanges that the '897 flange connector adjoins are referred to as “double T” flanges. As Figure 6 (below) illustrates, these sort of flanges consist of a flat top and two perpendicularly-placed legs:



¹ These materials are also referred to as “weldments” or “weld plates.” See '897, col. 1, line 35.

The process of joining the flange connectors, and thereby the flanges themselves, is straightforward. During the precast construction process, a flange connector is partially embedded into the flange with the “faceplate” of the connector exposed. Once the flanges are transported to the construction site, two concrete flanges are then placed adjacent to each other with the exposed faceplates nearly touching. A small metal lug is then dropped between the faceplates and the lug, and two faceplates are welded together.

In the '897 patent, the patentees included an embodiment illustrated by several figures. This embodiment envisions the flange connector as a one-piece member having several parts—the faceplate, two opposing faceplate returns, flattening bends, embedded legs, and reinforcing tabs. In Figure 1, these parts are labeled as follows: faceplate (18), faceplate returns (22), flattening bends (24), embedded legs (26), and reinforcing tabs (28).

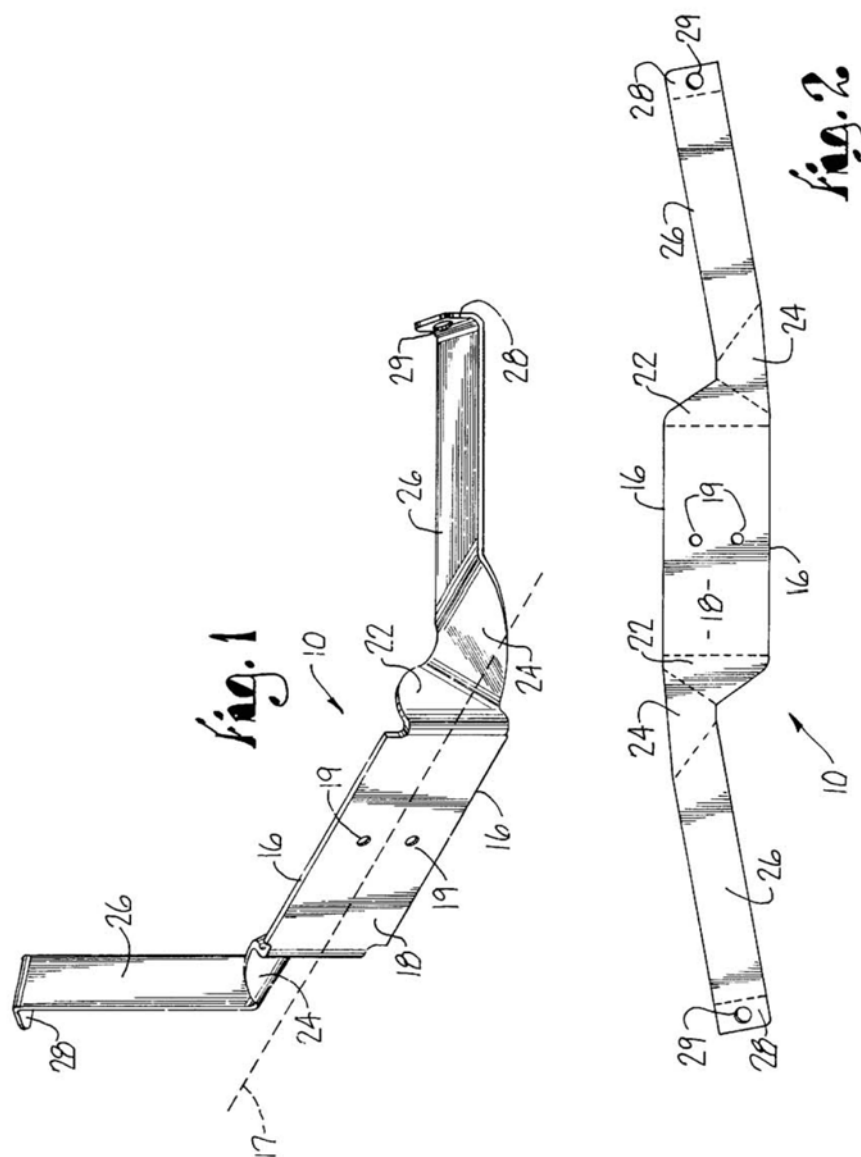
[next page]

U.S. Patent

Feb. 13, 2001

Sheet 1 of 5

US 6,185,897 B1



Several features distinguished the '897 flange connector from the prior art, including that it: (1) utilized a deeper “bend” from the faceplate to the faceplate returns than the prior art; (2) incorporated flat embedded legs with a horizontal orientation; (3) included a transition from the faceplate returns to the legs; and (4) allowed for faceplate expansion during welding.

Through these design features, the patentees sought to remedy three failures in the prior art flange connectors. The first failure was a tendency to cause cracking in the concrete surrounding the embedded portion of the connector. This phenomenon is referred to as “concrete break out.” The second failure of the prior art was a failure to properly accommodate for concrete “shear” and “tension”—two types of stresses described in more detail below. Thirdly, the prior art connectors were not strong enough to handle the vertical shear caused by heavy overloading of the concrete flanges, such as by a large truck traveling over a parking lot garage floor.

The terms shear and tension refer to certain stresses that the flange connectors, and the concomitant concrete flanges, bear through the course of use. Shear refers to stress caused by the flanges sliding with respect to each other in either a horizontal or vertical direction. Vertical shear can occur in either an upward or downward direction, and can be envisioned as one trying to pull a flange up or down. Horizontal shear can be envisioned as trying to push one flange forward on a horizontal plane and while simultaneously pulling the other flange backward. Tension, in contrast to shear, refers

to stress caused by the flanges moving apart.² When any of these stresses occur, the flange connectors, in turn, put stress on the concrete. The stresses can be significant enough to cause the flange connector, the concrete, or both, to fail.

The patentees were awarded their patent on February 13, 2001, with the patent having been assigned to Plaintiff JVI, Inc. (“JVI”). Claiming that Defendants have infringed upon the patent, JVI filed the instant suit on October 21, 2011. Discovery ensued. The parties have filed their Markman briefs, and the Court held a Markman hearing on December 4, 2012, wherein it indicated that this written Opinion would follow.

II. LEGAL STANDARDS

A. General Claim Construction Standard

Claims define the scope of the inventor’s right to exclude. Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005). Claim construction determines the correct claim scope, and is a determination exclusively for the court as a matter of law. Markman v. Westview Instruments, Inc., 52 F.3d 967, 978-79 (Fed. Cir. 1995) (en banc). Indeed, the court can only interpret claims, and “can neither broaden nor narrow the claims to give the patentee something different than what he has set forth” in the specification. E.I. Du Pont de Nemours v. Phillips Petroleum Co., 849 F.2d 1430, 1433 (Fed. Cir. 1988).

This interpretive analysis begins with the language of the claims, which is to be

² Another stress that the concrete flanges experience is compression, which occurs when the flanges come together and press into each other.

read and understood as it would be by a person of ordinary skill in the art. Dow Chem. Co. v. Sumitomo Chem. Co., 257 F.3d 1364, 1372 (Fed. Cir. 2001); see also Markman, 52 F.3d at 986 (“[T]he focus [in construing disputed terms in claim language] is on the objective test of what one of ordinary skill in the art at the time of the invention would have understood the term to mean”); Phillips, 415 F.3d at 1312-13. In construing the claims, the court may examine both intrinsic evidence (e.g., the patent, its claims, the specification and prosecution history) and extrinsic evidence (e.g., expert reports, testimony and anything else). Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1309 (Fed. Cir. 1999). However, claims may not be construed with reference to the accused device, which means that the court may not construe a claim to fit the dimensions of the accused device, thus to prejudice the claim construction by “exclud[ing] or includ[ing] specific features of the accused product.” Wilson Sporting Goods Co. v. Hillerich & Bradsby Co., 442 F.3d 1322, 1330 (Fed. Cir. 2006). Nevertheless, the knowledge of the accused device before or during claim construction is not only permissible, but also necessary to claim construction because it “supplies the parameters and scope of the infringement analysis.” Id. at 1330-31; Lava Trading Inc. v. Sonic Trading Mgmt., 445 F.3d 1348, 1350 (Fed. Cir. 2006).

In interpreting the disputed terms, it is well settled that the Court should look first to the intrinsic evidence. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). Generally, words in patent claims are given their “ordinary and accustomed meaning as understood by one of ordinary skill in the art” at the priority date of the patent application. Dow Chem., 257 F.3d at 1372; K-2 Corp. v. Salomon

S.A., 191 F.3d 1356, 1362 (Fed. Cir. 1999). The claims must be construed objectively in the context of both the particular claim and the entire patent because “the claims themselves provide substantial guidance as to the meaning of particular claim terms,” and claim terms are normally used consistently throughout the patent. Phillips, 415 F.3d at 1313-14.

Moreover, courts are instructed to look to the specification, which is a written description of the invention. “[C]laims ‘must be read in view of the specification, of which they are a part.’” Id. at 1315 (quoting Markman, 52 F.3d at 979). Indeed, the specification is perhaps “the single best guide to the meaning of a claim term” due to its statutory requirements of being in “full, clear, concise, and exact terms.” Id. at 1316; see 35 U.S.C. §112. “The specification acts as a dictionary when it expressly” or implicitly defines terms used in the claims. Phillips, 415 F.3d at 1321. Thus, it effectively limits the scope of the claim. On Demand Mach. Corp. v. Ingram Industries, Inc., 442 F.3d 1331, 1340 (Fed. Cir. 2006). Due to its nature, “the specification ‘is always highly relevant to the claim construction analysis. Usually it is dispositive.’” Id. (quoting Vitronics Corp., 90 F.3d at 1582).

Extrinsic evidence includes all evidence external to the patent and prosecution history, i.e., expert and inventor testimonies, dictionaries, and learned treatises. Markman, 52 F.3d at 980. It is considered only where the intrinsic evidence does not provide a sufficient description to resolve ambiguities in the scope of the claim. See Vitronics, 90 F.3d at 1583; Johnson Worldwide Assocs. v. Zebco Corp., 175 F.3d 985, 989 (Fed. Cir. 1999). However, the Federal Circuit cautioned, in Phillips, that

dictionary definitions should not be used to interpret patent claim terms in a manner that is divorced from the context and description of the invention in the specification. Phillips, 415 F.3d at 1321. The Phillips court reasoned that because of the nature of the patent claims, the dictionary definitions, as extrinsic evidence, are usually less reliable than the patent documents themselves in establishing the ordinary meaning of a claim term. Id. at 1314; Toro Co. v. White Consol. Indus., 199 F.3d 1295, 1299 (Fed. Cir. 1999). Ultimately, extrinsic evidence cannot be used to vary or contradict claim terms when their meanings are discernible from intrinsic evidence. C. R. Bird, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 862 (Fed. Cir. 2004).

Overall, in construing the claims, “[t]he judge’s task is not to decide which of the adversaries is correct. Instead, the judge must independently assess the claims, the specification, and if necessary the prosecution history, and relevant extrinsic evidence, and declare the meaning of the claims.” Exxon Chem. Patents, Inc. v. Lubrizol Corp., 64 F.3d 1553, 1556 (Fed. Cir. 1995); MEMS Technology Berhad v. International Trade Com’n, 447 Fed.Appx. 142, 153 (Fed. Cir. Jun.3, 2011) (same).

B. Expert Qualification Standard

Federal Rule of Evidence 702 requires that only reliable testimony, offered with a sufficient factual basis, be admitted.³ It was amended in response to the Supreme

³ Federal Rule of Evidence 702 provides:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's *290 scientific, technical, or other specialized knowledge will help the trier

Court's decision in Daubert v. Merrell Dow Pharms., Inc., which established a "gatekeeping role for the judge," whereby the court must determine the admissibility of expert testimony. 509 U.S. 579, 597, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993). See also ZF Meritor, LLC v. Eaton Corp., 696 F.3d 254 (3d Cir. 2012) ("Under Rule 702, the district court acts as a 'gatekeeper'"). Kumho Tire v. Carmichael explained that the Court's gatekeeper function applies not only to cases involving "scientific" knowledge but also in cases involving "technical" and "other specialized" knowledge. 526 U.S. 137, 141, 119 S.Ct. 1167, 143 L.Ed.2d 238 (1999).

Together, Daubert and Rule 702 impose three requirements for admissibility of expert testimony: "qualification, reliability, and fit." Calhoun v. Yamaha Motor Corp., 350 F.3d 316, 321 (3d Cir. 2003). First, the witness must have specialized expertise appropriate to his testimony. Pineda v. Ford Motor Co., 520 F.3d 237, 244 (3d Cir. 2008). This qualification requirement is liberally construed. Id. Second, the testimony must be reliable, which excludes opinions based on subjective belief or speculation; the opinion instead must "reliably flow from the facts known to the expert and the methodology used." ZF Meritor, 696 F.3d at 294 (quoting Daubert, 509 U.S. at 595). Third, the testimony must be relevant to issues in the case and assist the trier of fact.

of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

Pineda, 520 F.3d at 244.

III. DISCUSSION

At the Markman hearing, both parties presented expert testimony. Hence, as an initial matter, the Court briefly addresses the qualifications of the experts before proceeding to claim construction.

A. Expert Qualifications

The parties generally agreed, at the beginning of the hearing, not to seek to exclude their respective experts on the basis of qualifications. Indeed, there is no dispute amongst the parties that both Dr. Naito and Mr. Sample possess the specialized expertise to be considered experts in the area of flange connectors.

However, once Mr. Watry began to testify, the question arose whether he possessed the specialized expertise necessary to provide helpful testimony in this suit. Mr. Watry testified that he possessed a number of years of experience as a structural engineer. He has been a professional engineer for over 37 years, see Hrg. Tr. 174: 10-13, and appeared to the Court to be knowledgeable about general structural engineering concepts. As his testimony made pellucidly clear, however, he has no experience with the sort of flange connectors covered by the patent and no experience with pre-cast concrete construction utilizing double-T flanges. Id. at 177:6 - 178:11. Rather, his work experience has been solely in the State of California, where such materials are barred by the construction codes due to the unique stresses posed by earthquakes. Accordingly, Mr. Watry cannot be considered an expert in the area of flange connectors in the context of the patented product.

That said, because Rule 702's expert qualification requirement is liberally construed, Pineda, supra at 244, and because the Court finds that Mr. Watry possesses specialized expertise as a structural engineer, the Court will consider him an expert in that field. Accord id. ("To meet Rule 702's liberal qualification requirement, Clauser did not need to be substantively qualified in the design of automobile rear liftgates or the drafting of service manual instructions. Clauser's expertise in the stresses and other forces that might cause a material such as glass to fail was more than sufficient to satisfy Rule 702's substantive qualification requirement."). See Holbrook v. Lykes Bros. S.S. Co., 80 F.3d 777, 782 (3d Cir. 1996) ("[I]t is an abuse of discretion to exclude testimony simply because the trial court does not deem the proposed expert to be the best qualified or because the proposed expert does not have the specialization that the court considers most appropriate.") The weight to be given his testimony will be addressed in the following section, where I discuss the specific terms to be construed.

B. Claim Construction

As noted, there are only two claims to be construed—Claim 1 and Claim 6, which read as follows:

Claim 1

A flange connector comprising:

- a central faceplate, said faceplate having a longitudinal axis;
- a first and second opposing faceplate return, each said faceplate return extending from said central faceplate at approximately ninety degree (90) angles from said faceplate;
- a first and second flattening bend, said first flattening bend extending from said

first opposing faceplate return and said second flattening bend extending from said second faceplate return;

a first and second embedded leg, said first embedded leg extending from said first flattening bend and said second embedded leg extending from said second flattening bend, each said embedded leg being positioned in a plane substantially perpendicular to said faceplate and substantially parallel to said longitudinal axis of said face plate, said flattening bends angled between said faceplate return and said embedded legs to enable said embedded legs to be positioned in the plane and to allow said flange connector to flex under shear and tension forces.

Claim 6

A flange connector comprising:

a face plate, said faceplate having a longitudinal axis and having returns extending from the sides of each face plate that are angled to allow the face plate to expand under extreme heat;

at least two embedded legs that extend from said face plate return such that the legs initially extend away from said face plate return at an angle and then flatten out in a plane substantially perpendicular to the face plate and substantially parallel to said longitudinal axis of said faceplate.

'897 Patent, Claims 1, 6. Because some of the disputed terms are present in both claims, I structure the following discussion according to each term.

Present Invention Language

Before turning to the specific terms to be construed, I address an overarching dispute between the parties—what value should be accorded the patent's use of the qualifier "present invention" in the specification. In the summary of invention, the inventors describe the "present invention" as having three objects: (i) to absorb upward and downward shear force; (ii) to withstand seismic loading conditions and dynamic forces; and (iii) to allow the faceplate to expand during welding. Thereafter, the

summary of invention provides the following, with the bold number referring to the figures that accompany the specification:

To achieve these objectives, the flange connector **10** of the present invention is a onepiece steel member having a faceplate **18**, opposing faceplate returns **22**, flattening beds **24**, embedded legs **26** and reinforcing tabs **28**. The faceplate **18** is the central plate of the flange connector **10** that is welded to opposing faceplates with a lug or rod. To allow the faceplate **18** to expand during welding, two opposing faceplate returns **22** extend away from the faceplate **18** at approximately ninety-degree (90) angles. The ninety-degree (90) angles do not function to compress the faceplate **18** as do the more acute angles, and therefore, allow for the expansion of the faceplate **18** without causing fatigue to the concrete.

'897 Patent, col. 2:55-67 (emphasis added). The summary goes on to describe the remaining structural elements found in the figures, noting how these elements meet the stated objectives. The summary concludes with a statement that “[t]hese and other objects and advantages of the present invention will be clarified in the . . . description of the preferred embodiment in connection with the drawings, the disclosure and the appended claims” Id., col. 3, lines 24-28.

In the following section, titled description of the drawings, the inventors describe the four figures included in the specification. Most of the figures are described as “a flange connector of the present invention.” See id., col. 3, lines 32-54 (Figures 1, 2, 3, 4, 5, 8, 9). One figure—Figure 6—is described as “having flange connectors of the present invention.” Distinct from all the other descriptions of the figures, however, the description of Figure 7 does not state that it represents the present invention. Rather, the description reads that “FIG. 7 is a partial cross sectional view of a precast concrete structural tee having a flange connector cast therein.” Id., col. 3, lines 46-48.

Lastly, the inventors describe the preferred embodiment in a separate section. In that section, the inventors refer to figures 1-5 as representing that embodiment. This section also provides considerable detail about the embodiment, e.g., that it is “preferably comprised of either mild grade steel or a stainless steel,” id., col. 3, lines 64-65, and that “[w]hile both flattening bends could be designed to extend from either the lower or upper portion of the faceplate returns, the structural integrity of the flange connector would be compromised if the flattening bends were to extend in the same direction,” id., col. 4, lines 49-53 (reference numerals deleted). With respect to Figure 7, the description of the preferred embodiment notes that the faceplate is exposed in order to “allow[] two adjacent connectors to be welded to one another with an intermediary connecting lug or rod” Id., col. 5, lines 30-34. This section concludes with the caveat statement that, although the preferred embodiment is the best mode for carrying out the invention, the patent “is contemplated to cover the present invention and any and all modifications, variations, or equivalents” thereto. Id., col. 5, lines 48-49.

Defendants generally argue that the description of the flange connector in the summary of invention section should limit Plaintiff’s claims. In Defendants’ view, by using the qualifier “present invention,” the inventors announced to the public that the flange connector must be limited precisely to the description as set forth in that section. By way of example, Defendants argue that the statement “the flange connector **10** of the present invention is a onepiece steel member,” must be interpreted to mean that the flange connector can only be made of steel. Plaintiff, conversely,

argues that it is inappropriate to import such restrictions from the summary of invention section of the specification. According to Plaintiff, that language is akin to the description of a preferred embodiment from which it would be inappropriate to import a limitation on the claims.

“It is true that, in some circumstances, a patentee’s consistent reference to a certain limitation or a preferred embodiment as ‘this invention’ or the ‘present invention’ can serve to limit the scope of the entire invention, particularly where no other intrinsic evidence suggests otherwise.” Absolute Software, Inc. v. Stealth Signal, Inc., 659 F.3d 1121, 1136 (Fed. Cir. 2011) (quoting Verizon Servs. Corp. v. Vonage Holdings Corp., 503 F.3d 1295, 1308 (Fed. Cir. 2007)) (“When a patent thus describes the features of the ‘present invention’ as a whole, this description limits the scope of the invention”). So, in Honeywell Int’l, Inc. v. ITT Indus., Inc., 452 F.3d 1312 (Fed. Cir. 2006), the Federal Circuit imported a limitation from the specification where “[o]n at least four occasions, the written description refer[red] to [only one particular component] as ‘this invention’ or the ‘present invention’.” Id. at 1318. In addition, in American Piledriving Equipment, Inc. v. Geoquip, Inc., 637 F.3d 1324 (Fed. Cir. 2011), the Federal Circuit imported a limitation where the “present invention” language in the specification was consistent with “other statements and illustrations in the patent” and the figures illustrated that same limitation. Id. at 1334.

However, the Federal Circuit has determined that “use of the phrase ‘present invention’ or ‘this invention’ is not always so limiting, such as where the references to a certain limitation as being the ‘invention’ are not uniform, or where other portions

of the intrinsic evidence do not support applying the limitation to the entire patent.” Absolute, 659 F.3d at 1136-37. For example, in Voda v. Cordis Corp., 536 F.3d 1311 (Fed. Cir. 2008), the Federal Circuit found it insufficient to infer a limitation where parts of the specification referred to a certain embodiment as the “present invention.” Id. at 1320–22. Because the specification did not uniformly refer to the invention as being so limited, and the prosecution history did not reveal such a limitation, the Federal Circuit refused to import one. Similarly, in Praxair, Inc. v. ATMI, Inc., 543 F.3d 1306 (Fed. Cir. 2008), the Federal Circuit did not import a limitation where references to a specific embodiment as “the apparatus of this invention” and “a useful feature of this invention” in the specification were “contradicted by a number of express statements in the . . . specification clearly indicating that [the feature at issue was] a feature only of certain embodiments.” Id. at 1326.

In this case, I find it inappropriate to import all aspects of the summary of invention description of the “present invention” into the claims. Although there are several instances in which the inventors used “present invention” in describing the structural makeup of the invention and some of the accompanying figures, Figure 7 is not described as representing the “present invention.” That there is at least one figure that does not expressly correspond to the “present invention” suggests that there are other embodiments that could fit within the scope of the claims. The specification statement that all modifications are intended to fall within the claims further supports this view. That said, the Federal Circuit case law discussed above makes clear that the Court must engage in a term-specific inquiry in determining whether a particular

claim limitation should be imported. Accordingly, in analyzing each of the disputed claim terms, I will look to whether there are “other statements and limitations in the patent” and the figures that are consistent with the proposed limitation, American Piledriving, 637 F.3d at 1334, or whether the specification does not uniformly refer to the invention as being limited in the specific manners that Defendants suggest.

1. Flange Connector

The parties first dispute how the term flange connector should be construed, as illustrated by the chart below.

Claim(s)	Term to Construe	JVI’s Proposed Definition	Defendants’ Proposed Definition
1, 6	flange connector	A tool that is used to connect adjacent precast, concrete structures	an elongate, flat, one-piece steel member that is formed into the discrete segments recited infra, and which is used to connect adjacent precast, concrete structural members

While both parties agree that patent terms should be construed according to their ordinary and customary meaning, Plaintiff argues that “flange connector” is a term understood in the precast construction industry to refer to “a tool that is used to connect adjacent precast, concrete structures” and, hence, the Court should construe the claim in that fashion. Conversely, Defendant argues that its more-detailed proposed construction should be adopted because it is “more accurate, more useful, and [it] more naturally aligns with the ’897 specification.” Def. Resp. Br. at 7. Defendant

further argues that the patentees acted as their own lexicographer and set forth a unique definition for flange connector.

When a court must discern the meaning of a claim term, the Federal Circuit has instructed:

Generally claim terms should be construed consistently with their ordinary and customary meanings, as determined by those of ordinary skill in the art. While in some cases there is a presumption that favors the ordinary meaning of a term, the court must first examine the specification to determine whether the patentee acted as his own lexicographer of a term that already has an ordinary meaning to a person of skill in the art.

Merck & Co. v. Teva Pharms. USA, 395 F.3d 1364, 1370 (Fed. Cir. 2005). “To act as its own lexicographer, a patentee must ‘clearly set forth a definition of the disputed claim term....’” Medtronic Inc. v. Boston Scientific Corp., 695 F.3d 1266, 1275 (Fed. Cir. 2012) (quoting CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1366 (Fed. Cir. 2002)).

Turning to the specification language here, the first reference to flange connectors is found in the background section of the patent where the patentees recount the prior art in the field. In this context, the specification states:

To prevent or lessen the relative horizontal and vertical movement between the abutting members and to provide added strength and rigidity to the structure, metal pieces may be embedded into the flanged edges of the members. . . . The metal pieces are commonly called weldments, weld plates, or flange connectors.

’897 Patent, col.1, lines 28-35 (emphasis added). By preceding their use of flange connectors with the phrase “commonly called,” this language suggests that the

patentees sought to invoke the ordinary and customary meaning of flange connectors.

Throughout the remainder of the specification, the patentees refer to flange connectors in this same manner. For example, the patentees state “[a]t present, typical flange connectors are formed of one-piece metal members . . .” *Id.*, col. 1, lines 36-37. This language, again, suggests that the patentees are invoking the commonly understood meaning of flange connectors in describing the prior art. Moreover, in the summary of the invention, the patentees state that “the principal object of the present invention is to provide a flange connector that absorbs the shear force” *Id.*, col. 2, lines 42-43. By describing the principal object as creating a flange connector, this language also suggests that the patentees intended to adopt the ordinary and customary meaning of the term.

Defendants points to additional language in the specification to support their contention that the patentees did, in fact, act as their own lexicographer. That language, which describes the preferred embodiment of the invention, provides: “the flange connector (10) of the present invention is a one piece steel member having a faceplate (18), opposing faceplate returns (22), flattening bends (24), embedded legs and reinforcing tabs (28).” *Id.*, col. 2, lines 56-58 (emphasis added). See also *id.*, Ex. 1, col. 3, ln. 59-63 (“As can be seen in all the figures, but as best illustrated by FIGS. 1-5, the flange connector 10 of the present invention is comprised of a one-piece member having a faceplate 18, opposing faceplate returns 22, flattening bends 24, embedded legs 26 and reinforcing tabs.”) In Defendants’ view, this language makes clear that the patentees specially defined flange connectors to include only one-piece steel members

formed into several discrete elements or segments.

I see no basis for importing the one-piece steel limitation into Plaintiff's claims based upon this specification language. For one, the specification language upon which Defendants rely is describing the preferred embodiment and, therefore, may not be imported into the claims as a limitation. More to the point, the Federal Circuit has made clear that, for a patentee to act as its own lexicographer, it must clearly set forth a definition of the disputed claim term or it must have "specifically defined the terms to include [the] limitation" Medtronic, 695 F.3d at 1275. Rather than setting forth its own special definition, as illustrated above, the specification language here clearly adopts the ordinary and customary definition of flange connector.

Nor am I persuaded by Defendants' argument that their proposed construction is "more accurate, more useful, and [it] more naturally aligns with the '897 specification." Def. Resp. Br. at 7. Defendants base this quote upon language found in the Federal Circuit's seminal claim construction decision in Phillips, *supra*. While Phillips states that the proper construction of a claim term is the one that "most naturally aligns with the patent's description of the invention," the complete quote from Phillips makes clear that the correct construction is the one that also "stays true to the claim language" 415 F.3d at 1316 (quoting Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1250 (Fed.Cir. 1998)). Reading the specification language in context, it is clear that the language relates only to describing the preferred embodiment.

In this connection, recall that the specification itself warns against undue

reliance on the preferred embodiment by noting:

Although the foregoing detailed description of the present invention has been described by reference to a single exemplary embodiment, and the best mode contemplated for carrying out the present invention has been herein shown and described, it will be understood that modifications or variations in the structure and arrangement of this embodiment other than those specifically set forth herein may be achieved by those skilled in the art and that such modifications are to be considered as being within the overall scope of the present invention. Therefore, it is contemplated to cover the present invention and any and all modifications, variations, or equivalents that fall within the true spirit and scope of the underlying principles disclosed and claimed herein. Consequently, the scope of the present invention is intended to be limited only by the attached claims.

'897 Patent, col.5, lines 55-63. While the inclusion of this sort of boilerplate phrase does not dictate my construction of Plaintiff's claims, it cautions against reading limitations into the claims. Accord Honeywell Intern., Inc. v. Nikon Corp., 589 F.Supp.2d 433, 442 (D. Del. 2008) ("[T]he language in the . . . specification referring to other embodiments is not boilerplate "catch-all" legalese, but rather reflects a deliberate effort by the patentee to use an example to help describe the invention and its embodiments.")

Defendants further urge the Court to construe flange connector as a one-piece member because, in a prior litigation involving the same patent, Plaintiff argued: "There is no question that the faceplate returns, flattening bends, and embedded legs correspond to different sections of the flange connector." Def. Open. Br., Exh. 11 (JVI's Claim Construction Brief, Dkt. No. 32, JVI, Inv. v. Universal Inc., 1:05-cv-05385 filed

8/4/06) (“Universal”) at 9. Defendants interpret JVI’s reference in the earlier case to the faceplate returns, bends, and legs as “sections” as a concession that the invention is a one-piece member. Assuming for the sake of argument that Plaintiff’s statements before the Universal court bear on the claim construction in this case, JVI’s prior statement does not alter my analysis.

Plaintiff’s statement in its Universal brief was made in the context of the construction of the “each said faceplate return extending from said central faceplate at approximately ninety degree (90°) angles from said faceplate” term. In Universal, the defendant there proposed that this term be construed, inter alia, to mean that the faceplate returns must be of a “different structure” than the flattening bends and embedded legs. See JVI Universal Br. at 9. Arguing that the defendant’s construction was not supported by the claim and specification language, JVI reasoned that the “specification makes clear that the faceplate return and the embedded legs may be different portions of the same structure.” Id. (emphasis added). JVI went on to cite to the preferred embodiment of the patent, noting that, in that embodiment, “[t]here is no question that the faceplate returns, flattening bends, and embedded legs correspond to different sections of the flange connector.” Id. Hence, when read in context, it is clear that JVI’s statement in its Universal brief was specifically addressing whether the faceplate return could be a section of the flange connector, as opposed to a separate structure thereof—not whether the return must be. Accordingly, JVI’s statement should not be read as some sort of concession that its invention is and can only be a

one-piece member.⁴

Defendants further argue that the “present invention” language in the patent makes clear that the inventors envisioned the invention as a one-piece steel member. Defendants point to specific language in the summary of the invention that “the flange connector . . . of the present invention is a one-piece steel member” Seizing upon this language, Defendants point to SciMed Life Systems, Inc. v. Advanced Cardiovascular Systems, Inc., 242 F.3d 1337, (Fed. Cir. 2001), and its progeny, for the proposition that this sort of specification language operates as a clear disavowal, limiting the scope of the patentee’s claims. In this instance, I disagree.

While Defendants are correct in noting that, in SciMed, the Federal Circuit found it persuasive that the specification included the limiting factor in its description of the “present invention,” Defendants neglect to mention that the specification in SciMed included the additional language that the limitation “is . . . for all embodiments of the present invention contemplated and disclosed herein.” 242 F.3d at 1343. (emphasis added). Importantly, in a recent Federal Circuit case, the circuit described SciMed’s holding as: the “present invention” language together with the “all embodiments” language “collectively . . . amounted to disavowal” Thorner v. Sony Computer Entertainment America LLC, 669 F.3d 1362, 1366 (Fed. Cir. 2012) (discussing SciMed). Moreover, as discussed supra, when construing “present

⁴ In this connection, the Court notes that Defendant’s own expert, Mr. Watry, testified at his deposition that a person of ordinary skill in the art of engineering understands that a flange connector “could be two pieces or 3-piece.” Watry Dep. 89:24-25.

invention” language, courts must consider whether there are “other statements and limitations in the patent” and the figures that are consistent with the proposed limitation, American Piledriving, 637 F.3d at 1334, or whether the specification does not uniformly refer to the invention as being so limited.

Here, the specification does not contain any language suggesting that all embodiments must be a one-piece steel member like the language in SciMed. Additionally, as noted above, the specification includes language expressly broadening the patent beyond the preferred embodiment, stating that “[a]lthough the foregoing detailed description of the present invention has been described by reference to a single exemplary embodiment . . . it will be understood that . . . variations in the structure . . . are to be considered as being within the overall scope of the present invention. . . . Consequently, the scope of the present invention is intended to be limited only by the attached claims.” Id., col.5, lines 55-63. See LG Electronics U.S.A., Inc. v. Whirlpool Corp., 2007 WL 980419, *8-9 (D.N.J. Apr. 2, 2007) (GEB) (rejecting limitation where similar language included in specification).

In my view, reading the specification as a whole, the inventors did not limit their invention to one-piece steel members but, rather, used the one-piece steel member example to “make their specification more accessible” Honeywell, 589 F.Supp.2d at 442-43 (“Pairing a description of a specific, concrete use of the invention with a generalized description of the invention, the specification thus uses an example in the usual way to clarify the broader concept.”) They should not be punished for attempting to clarify their invention and render the specification more teachable. Accord id. at

443.

As noted, although cases have imported a limitation in the face of such a disclaimer, those cases have only done so where the limitation was the “sole inventive feature disclosed in the specification.” Rambus Inc. v. Hynix Semiconductor Inc., 569 F.Supp.2d 946, 983 (N.D.Cal. 2008). For example, in Akeva L.L.C. v. Adidas-Salomon AG, 208 Fed.Appx. 861 (Fed. Cir. 2006), the Federal Circuit construed a patent for athletic soles with interchangeable soles. The specification stated that, “in a radical departure from conventional shoes, the shoe of the present invention incorporates a heel structure, including a detachable rear sole, that significantly alleviates heel wear problems associated with conventional soles and provides enhanced cushioning and/or spring.” Id. at 863. However, at the end of the specification, the inventors included a catch-all phrase that “it is intended that the present invention cover all possible combinations of the features shown in the different embodiments, as well as modifications and variations of this invention, provided they come within the scope of the claims and their equivalents.” The Federal Circuit concluded that this catch-all phrase did not preclude importation of a limitation that the rear soles must be detachable because “the detachable sole of the . . . patent is not one of several features, it is the primary feature of the invention.” Id.

In this case, unlike in Akeva, the structural composition of the faceplate is not the central feature disclosed in the specification, rather, it is the angle at which the legs extend from the faceplate, and the ability of the faceplate to expand during welding, inter alia, that comprise several of the inventive features of the '897 Patent.

In addition, the key design feature that distinguishes the '897 Patent from the prior art of Russell and Kahn is that the “flattening bends [are] angled between [the] faceplate return and [the] embedded leg [is] positioned in a plane substantially perpendicular to [the] faceplate member and substantially parallel to [the] longitudinal axis of [the] face plate [sic]” ’897 Patent, col. 6, lines 10 -12 (Claim 1); see File History, 09/334,292 App., Oct. 5, 2000 Resp. to Office Action at 2-3 (Def. Open. Br., Exh. 2) (“Applicant has amended independent claims 1 and 6 to clarify that the embedded legs are positioned in a plane substantially perpendicular to the faceplate and substantially parallel to the longitudinal axis of the faceplate. Because this limitation is not disclosed in [Russel and Kahn], Applicant respectfully requests that the Examiner withdraw her rejection.”). In short, there is no language in the specification that suggests it is necessary for the connector to be one-piece in order to meet the invention’s objectives. See ’897 Patent, col.2, lines 43-54. Thus, as I do not find that the inventors expressly limited the claims, there is no basis for importing into the claims a limitation that the flange connector be a one-piece steel member. Accord Rambus, supra at 983 (distinguishing Akeva where more than one feature of invention); Honeywell, supra at 443-44 (same).⁵

⁵ Although I reject Defendants’ argument that the claims are limited to one-piece members, I do not reject that aspect of Defendants’ constructions that use the term “segment” or “segments” to describe specific portions of the invention. For example, in their proposed construction of faceplate return, discussed below, they describe the return as “[a]n integrally formed segment” While the term “integrally” is problematic, “segment” is not because the common definition of segment is merely that it is “a separate piece of something” or “one of the constituent parts into which a body, entity, or quantity is divided or marked off” Webster’s Ninth New Collegiate

Other aspects of Defendants’ proposed construction are troubling as well. Defendants’ construction includes the terms “elongate,” “flat” and “discrete,” yet Defendants have not pointed to any language in the claims, specification, or prosecution history to explain why these words should be incorporated into the overarching term of flange connector. Thus, I see no basis for including those terms in my construction.

Having rejected Defendant’s proposed construction, I return to Plaintiff’s proposed construction of flange connector: A tool that is used to connect adjacent precast, concrete structures. In support of its construction, Plaintiff points to language in the specification that “[t]he flange connector . . . is used to adjoin adjacent concrete structural members” Id., col. 1, lines 6-8. Plaintiff further relies on the testimony of its expert, Prof. Clay Naito. Prof. Naito states in his declaration that this construction is consistent with the plain and ordinary meaning of flange connectors to one skilled in the art. As elucidated at the hearing, Prof. Naito bases his opinion on his review of literature from the 1997 through 1999 period. See Hrg. Tr. (“Tr.”) 30:3-7.

“[Federal Circuit] case law is clear, claim terms must be given their plain and ordinary meaning to one of skill in the art.” Thorner, 669 F.3d at 1367 (quoting

Dictionary at 1063 (1985). Treating the flange connector as a whole—though not one-piece—object, “segment” may refer to one delineated section of either a one-piece or multiple-piece flange connector. In this connection, I note that Plaintiff appears to prefer the term “portion” to “segment,” however, these terms have similar meanings. Portion, like segment, is defined as “an often limited part set off or abstracted from a whole.” Id. at 917. Thus, I see no material difference between the use of these two terms and may use them interchangeably in my constructions.

Phillips, 415 F.3d at 1316). And, where a patentee does not clearly “assign to a term a unique definition that is different from its ordinary and customary meaning,” by acting as its own lexicographer, the ordinary and customary meaning of that term applies. Laryngeal Mask Co. Ltd. v. Ambu, 618 F.3d 1367, 1372 (Fed. Cir. 2010). Here, I find that Plaintiff’s proposed construction is consistent with the plain and ordinary meaning of “flange connector.” As Plaintiff argues, the specification language refers to the flange connector as a tool that is used to adjoin precast concrete flanges and does not assign any unique definition to the term. Moreover, both experts agree on the use of the term in the industry; like Plaintiff’s expert Naito, Defendants’ expert Sample used the term “flange connectors” to discuss precast concrete structures in construction projects he worked on in 1999.⁶ Notably, Defendants even include as an

⁶ Q. And in June of 1999, how much experience did you have working with flange connectors?

A. Quite a bit. At that time we probably had designed in excess of 50 parking garages, and every parking garage would have a flange connector.

Q. Can you describe what I’ll call the state of the art of flange connectors back in 1999.

A. In 1999 we were probably doing work for, I’m going to say, six producers in the northeast area, and of those producers the only flange connector that we were using at that time was a flat plate with two round anchors extending from the flat plate. It would be cast in the tee with the plate vertical on the edge. The means of connecting the flange connector from two pieces would be by welding the top edge of the plate, and that was pretty much the standard in the industry at that time.

Tr. 115:17 - 116:8.

exhibit to their papers a 1997 letter from Ned Cleland, a consulting structural engineer,⁷ to Plaintiff, in which letter he states that he has “been working with flange connectors . . .for some time” in his precast construction work. Def. Resp. Br., Exh. 5 at 1. Hence there is ample evidence in the record from which I can conclude that a person skilled in the art in 1999 would understand the term flange connector to have a specific meaning in the field.

Defendant argues that, by simply referring to the flange connector as a “tool,” Plaintiff’s proposed construction is overly broad such that it would encompass a “wide variety of connectors, such as weld plates” Def. Resp. Br. at 11. The Court finds this argument perplexing since the patent uses “flange connector” and “weld plate” interchangeably. See ’897 Patent, col.1, lines 33-35 (“The metal pieces are commonly called weldments, weld plates, or flange connectors.”).

Nonetheless, while the construction may appear broad at first glance, when read in the context of the claims, it is sufficiently specific to illuminate the term. For example, if one were to incorporate Plaintiff’s proposed construction into Claim 1, it would read:

A tool that is used to connect adjacent precast, concrete structures comprising:

a central faceplate, said faceplate having a longitudinal axis;

a first and second opposing faceplate return, each said faceplate return extending from said central faceplate at approximately ninety degree (90) angles from said faceplate;

⁷ This engineer served an expert in the Universal case, and was deposed in this case by Defendants. Cleland Dep. 10:19; id. at 22:19-23:7.

a first and second flattening bend, said first flattening bend extending from said first opposing faceplate return and said second flattening bend extending from said second faceplate return;

a first and second embedded leg, said first embedded leg extending from said first flattening bend and said second embedded leg extending from said second flattening bend, each said embedded leg being positioned in a plane substantially perpendicular to said faceplate and substantially parallel to said longitudinal axis of said face plate, said flattening bends angled between said faceplate return and said embedded legs to enable said embedded legs to be positioned in the plane and to allow said flange connector to flex under shear and tension forces.

As this example illustrates, the detailed language of the claim itself provides sufficient context and specificity for Plaintiff's proposed construction of flange connector.

In this regard, the Federal Circuit has observed, "a sound claim construction need not always purge every shred of ambiguity." Acumed LLC v. Stryker Corp., 483 F.3d 800, 806 (Fed. Cir. 2007). Rather, "after the court has defined the claim with whatever specificity and precision is warranted by the language of the claim and the evidence bearing on the proper construction, the task of determining whether the construed claim reads on the accused product is for the finder of fact." PPG Indus. v. Guardian Indus. Corp., 156 F.3d 1351, 1355 (Fed. Cir.1998) quoted in Acumed, supra at 806. Here, Plaintiff's proposed construction provides sufficient detail for the finder of fact to sort out the nuances. Accordingly, for the foregoing reasons, I find Plaintiff's proposed construction consonant with the plain and ordinary meaning of "flange connector" and I adopt that construction here. Although I am not required to adopt either party's construction wholesale, see Exxon, 64 F.3d at 1556, in this instance, I find that Plaintiff's proposed construction captures the ordinary meaning of the term.

2. Faceplate/Central Faceplate

The parties next propose constructions of the term “faceplate,” which is found in both claims 1 and 6.

Claim(s)	Term to Construe	JVI’s Proposed Definition	Defendants’ Proposed Definition
1, 6	central faceplate / faceplate	The central portion of the flange connector	A planar or flat segment of the steel member

As an initial matter, I reject inclusion of the term “steel” for the same reason that I rejected inclusion of the “one-piece steel member” language proposed by Defendants. Moreover, as explained above, I see no material difference between the use of “portion” versus “segment.” What remains of the parties’ dispute, then, is whether the construction should include the limitation that the faceplate is “planar or flat” as Defendants urge and, if not, whether Plaintiff’s proposed construction is sufficiently detailed to assist the finder of fact at trial.

Plaintiff’s proposed construction—the central portion of the flange connector—renders language in Claim 1 redundant. Claim 1 states, in pertinent part: “A flange connector comprising: a central faceplate, said faceplate having a longitudinal axis; a first and second opposing faceplate return extending from said central faceplate at approximately ninety degree (90) angles from said faceplate” That “central” is used to modify “faceplate” weighs against construing “faceplate” as the central portion of the flange connector. See Phillips, 415 F.3d at 1314 (“[T]he claim in this case refers to “steel baffles,” which strongly implies that the term “baffles” does not inherently mean

objects made of steel.”). Accord Verizon, 503 F.3d at 1304 (quoting same). For this reason, I reject Plaintiff’s proposed construction.

Defendants propose that the Court include the terms “planar or flat” in its construction. There is a reference to “planar” in the specification, but it is in the background section of the patent and describes the prior art. That reference provides that “typical flange connectors are formed of one-piece members comprising (1) a front central plate having a planar weldable surface ...” ’897 Patent, col.1, lines 36-38 (emphasis added). Because this use of planar is in the background section—and is not describing the invention—it is of little use to the Court. Verizon, 503 F.3d at 1304; cf. id. at 1305 (“The cited passage also does not address the meaning of ‘destination address’ within the patented invention, but only within the context of the general operation of the internet, and is of limited utility.”). Nowhere else in the specification or in the claims is there any reference to “planar” or “flat.” Nor have Defendants pointed to language in the prosecution history to support their construction. Indeed, the only reference they cite in support of their construction is Webster’s Ninth New Collegiate Dictionary, which defines “plate” as “a smooth flat thin piece of material.”

Courts may turn to dictionary definitions where the ordinary meaning of claim language as understood by a person of skill in the art is readily apparent. See Phillips, 415 F.3d at 1314 (“In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words. In such circumstances,

general purpose dictionaries may be helpful.”) Resort to a dictionary can be particularly useful where claim language is broad enough to encompass more than one meaning, see Zircon Corp., v. Stanley Black & Decker, Inc., 452 Fed.Appx. 966 (Fed. Cir. 2011), or where intrinsic evidence does not define a scientific term, see Atofina v. Great Lakes Chemical Corp., 441 F.3d 991, 996 (Fed. Cir. 2006). “Because dictionaries, and especially technical dictionaries, endeavor to collect the accepted meanings of terms used in various fields of science and technology, those resources have been properly recognized as among the many tools that can assist the court in determining the meaning of particular terminology to those of skill in the art of the invention. Such evidence, we have held, may be considered if the court deems it helpful in determining ‘the true meaning of language used in the patent claims.’” Phillips, 415 F.3d at 1318.

Before turning to Defendants’ reliance on the definition of “plate,” I first consider whether Webster’s specific definition of “faceplate” is instructive. Webster’s Ninth New Collegiate Dictionary (1985) defines “faceplate” as “a disk fixed with its face at right angles to the live spindle of a lathe for the attachment of the work.” Id. at 443. Clearly, this definition is not applicable to the patent at issue which has no lathe or spindle, thus, I do not find it helpful. Notably, the definitions adopted in patent cases analyzing the term “faceplate” in other contexts are varied, which further suggests that there are multiple meanings for the term faceplate. See, e.g., Lambda Optical Solutions, LLC v. Alcatel-Lucent USA Inc., Civ. Action No. 10–487, 2012 WL 3201701 (D. Del. Aug. 3, 2012) (a portion of an optical access ingress or egress subsystem that carries optical signals over fiber optic network wire); Arlington Industries, Inc. v.

Electronic Custom Distributors, Inc., 817 F.Supp.2d 473, 476 (M.D.Pa. 2011) (“[A] detachable nose faceplate [that] cover[s] the unsightly hole while allowing [an electrical] wire to be threaded through the wall.”); Tokyo Shibaura Elec. Co., Ltd. v. Zenith Radio Corp., 404 F.Supp. 547, 550 n.3 (D. Del. 1975) (the viewing screen of a tube television).

As there appears to be no applicable commonly understood definition of faceplate, I turn, then, to the dictionary definition of “plate.” As noted, Webster’s defines “plate” as “a smooth flat thin piece of material.” Id. at 901. That a plane is flat is consistent with the use of “plate” in the engineering field—the Machiner’s Handbook, 22nd ed. (1984), discusses the strength of several types of plates, including “square and rectangular flat plates” and “circular flat plates.” Def. Resp. Br., Exh. 13 at 324-27. Throughout the reference book’s discussion, it refers to all plates as if they are flat objects. See id. As this comports with the commonly accepted meaning of plate, I find it appropriate to include “flat” in my construction of “faceplate” here.

In this connection, I further note Claims 1 and 6 claim that the embedded legs are substantially perpendicular to the faceplate. It is difficult to imagine that the legs could be perpendicular to an object that is not flat.

To further construe faceplate in the context of the patent, I turn, again, to the specification. The specification clearly teaches that the faceplate is exposed from the concrete flange; only the legs are embedded. See ’897 Patent, col. 2, lines 55-68. Thus, a proper construction should take into account that the faceplate is exposed. Indeed, an exposed surface is what is most likely meant by the conjunction of the word “face”

with “plate.” See Webster’s Ninth New Collegiate Dictionary 443 (defining “face” as “a front, upper, or outer surface”) (emphasis added). This result is consistent with, though not dictated by, the preferred embodiment, which explains that “[t]he flange connectors are cased into the flanged edges of the double tee concrete structure such that [the] top edge of the faceplate of the flange connector is exposed.” See id., col. 5, lines 24-26. And, this construction is further supported by the specification’s description that two flange connectors are adhered to one another by welding their external surfaces together with a lug or rod. Accordingly, for the foregoing reasons, I construe faceplate as a flat segment of the flange connector that has some portion exposed for welding.

3. Faceplate Return

The parties disagree over how to construe the term “faceplate return” found in Claim 1. They propose the following constructions:

Claim(s)	Term to Construe	JVI’s Proposed Definition	Defendants’ Proposed Definition
1	faceplate return	The portions of the flange connector that extend from the faceplate.	An integrally formed segment of the flat steel member that is formed at each end of the faceplate along a linear crease that extends the entire width of the faceplate so that the return extends away from the central faceplate portion

Neither the specification nor the prosecution history uniquely defines this term. However, its definition is made clear through its use in the specification and claims.

The specification repeatedly refers to the faceplate returns as extending away from the faceplate, and serving as a transition to the flattening bends and embedded legs. See '897 Patent, col. 2, lines 61-63; id. at col. 3, lines 1-4. According to the specification language, the faceplate returns extend away at a ninety-degree angle, as opposed to the forty-five degree angle often employed in prior art, in order to allow the faceplate to expand during welding. See id. at col. 2, lines 64-66. In this way, Plaintiff's proposed construction, i.e., the portions of the flange connector that extend from the faceplate, is in sync with the intrinsic evidence.

Defendants propose a much more detailed construction that includes the further limitations that the faceplate return is "integrally formed" and that it is along a "linear crease" that "extends the entire width of the faceplate." As an initial matter, my rejection, supra, of Defendants' proposed limitation of a one-piece member dictates that I also reject Defendants' "integrally formed" language. With respect to the proposed limitation that the returns are "formed at each end of the faceplate along a linear crease that extends the entire width of the faceplate," there is simply no language in the '897 Patent specification or prosecution history to support inclusion of such a limitation. For some reason, Defendants urge the Court to consider other U.S. patents that utilize the term "return" to describe integrally formed members. However, Defendants cite no legal authority in support of such a practice and I am perplexed as to why the use of "return" in other patents should inform my construction here.

In addition, Defendants point to the deposition testimony of their expert, Mr. Sample, wherein he opines that the patent requires the faceplate return to have a clear

delineation between itself and the faceplate. See Sample Dep. 190:4-9; id. at 193:3-5. But this testimony says nothing about a “linear crease”; it refers only to a “clear delineation.”⁸ Moreover, resort to expert testimony is at the Court’s discretion, and courts are directed to disregard expert testimony that is “clearly at odds with the claim construction mandated by ... the written record of the patent.” Phillips, supra at 1318 quoted in Network Commerce, Inc. v. Microsoft Corp., 422 F.3d 1353, 1361 (Fed. 2005). I see no need to resort to such testimony here, where there is no support for the proposed limitations in the intrinsic evidence.

Because I conclude that Plaintiff’s proposed construction comports with the intrinsic evidence, I adopt that construction here.

4. Ninety-Degree Angle

The parties spend considerable time briefing and discussing whether the ninety-degree angle between the faceplate returns and the faceplate, found in Claim 1, must be a constant one. Specifically, the parties propose the following constructions of that disputed term:

Claim(s)	Term to Construe	JVI’s Proposed Definition	Defendants’ Proposed Definition
1	each said faceplate return extending from	Each faceplate return has a portion that extends from the	a constant angle of approximately ninety degrees (90°) formed

⁸ The Court further notes that Mr. Sample admitted at the Markman hearing that, in forming his constructions of the patent, he was not instructed on claim construction law. In light of this concession, I must accord little weight to his opinions on claim construction. That said, I express no concern over his testimony on industry background and the state of the art of flange connectors in 1999.

	said central faceplate at approximately ninety degree (90°) angles from said faceplate	faceplate at about 90 degrees <u>Initial construction:</u> two segments that extend at approximately 90 degree angles from opposite ends the faceplate	along the entire width of the return as measured at any point along the intersection between either the interior or exterior surfaces of the faceplate and the return
--	--	--	---

For this term, Plaintiff has put forth two proposed constructions during the course of this litigation. Defendants take issue with this, arguing that Plaintiff is bound by its initial construction. The key difference between Plaintiff's initial and subsequent proposed construction is that the latter limits the ninety degree angle to only "a portion" of the transition between the faceplate returns and the faceplate.

As an initial matter, I reject the notion that only "a portion" of the angle need be substantially ninety degrees. In support of its proposed construction, Plaintiff relies heavily on the testimony of its expert, Dr. Naito. Dr. Naito states in his declaration that the "approximately ninety degree" term would be understood by a person skilled in the art "to require that the angle . . . be close to ninety degrees at some point, because that is the whole point of this aspect of the invention." Naito Decl., ¶ 42. He further explains that the purpose of the ninety degree angle is to form a weak point in the concrete that will allow the faceplate to expand, see id. at ¶ 43, and that as long as one portion of the angle is at approximately ninety degrees, that necessary weak point will exist. See Naito Dep. 203:16. In plain english, his testimony at the Markman hearing was that, by incorporating "a portion" in the claim construction, the

construction accounts for the “return bending in a slightly different way that can make the angle different in different places.” Tr. 60:11-12.

While I generally find Dr. Naito’s testimony on the background of the invention helpful, I choose not to rely on his testimony related to the construction of this term. As noted, the consideration of expert testimony is at the discretion of the court, and courts are directed to disregard expert testimony that is “clearly at odds with the claim construction mandated by ... the written record of the patent.” Phillips, supra at 1318 quoted in Network Commerce, Inc. v. Microsoft Corp., 422 F.3d 1353, 1361 (Fed. 2005). Here, I find no support for the “a portion” limitation in the intrinsic evidence. In the summary of invention section of the specification, the inventors describe the ninety-degree angle as follows:

To allow the faceplate to expand during welding, two opposing faceplate returns extend away from the faceplate at approximately ninety-degree (90) angles. The ninety-degree (90) angles do not function to compress the faceplate as do the more acute angles, and therefore, allow for the expansion of the faceplate without causing fatigue to the concrete.

’897 Patent, col. 2, lines 63-67 (emphasis added). This specification language does not leave room for Dr. Naito’s interpretation that only a portion of the bend need be a ninety-degree angle; the language takes pains to distinguish acute angles like a forty-five degree angle.⁹ Furthermore, Plaintiff has not pointed to any language in the file history to support his view, and this Court’s review of the history confirms that no such

⁹ An acute angle is “an angle measuring less than 90 degrees.” Webster’s Ninth New Collegiate Dictionary at 54.

language exists. Finally, Webster's defines "approximately" as "nearly correct or exact." Webster's Ninth New Collegiate Dictionary at 98. Under this definition, it is difficult to imagine Dr. Naito's example that a bend that is ninety degrees at one point, and forty-five degrees at another, is "approximately" ninety degrees when there is such a wide range between those two types of angles. Accordingly, I reject Plaintiff's latter-offered proposed construction that includes the "a portion" language.¹⁰

Turning now to Plaintiff's initial construction, that the ninety-degree angle refers to "two segments that extend at approximately 90 degree angles from opposite ends of the faceplate," I find that this construction should be adopted. At the outset, I note that Defendants have indicated to the Court that they would agree to this construction of the ninety-degree angle term. More importantly, this construction is consistent with the intrinsic evidence. Unlike Plaintiff's latter-adopted construction, this construction does not seek to limit the angle to only a portion of the bend. Moreover, if I were to consider Defendants' proposed construction, I would reject it as unsupported by the intrinsic evidence. Defendants' construction adds the limitation that the angle need be constant throughout the entire width of the bend, but nothing in the specification suggests that the angle must be the same throughout the entire bend. As noted, the commonly understood definition of "approximately" is "nearly

¹⁰ For this reason, I do not address Defendants' argument that Plaintiff erred in failing to seek leave of Court before amending its proposed construction. Nor do I address Defendants' motion to strike which is premised upon this same challenge to Plaintiff's amendment. In addition, I need not address Defendants' argument that Plaintiff's latter-offered construction violates 35 U.S.C. § 112.

correct or exact,” which does not imply that the angle need be consistently 87 degrees or consistently 93 degrees in order to be an approximately ninety-degree angle. Rather, the definition of approximately leaves room for the angle to vary, for example, between 87 and 93 degrees at various points along the bend. In other words, the angle need not be uniform throughout. Lastly, while one could argue that this construction could use additional exposition of the term “approximately,” I find that unnecessary as the parties have agreed to this construction and because the common definition of that term is accessible to the jury without need for further elucidation. Accordingly, I adopt Plaintiff’s initial proposed construction—“two segments that extend at approximately 90 degree angles from opposite ends the faceplate.”

5. Flattening Bend

The parties dispute whether the following language in Claim 1, which identifies the location of the flattening bends in the flange connector, needs construction.

Claim(s)	Term to Construe	JVI’s Proposed Definition	Defendants’ Proposed Definition
1	a first and second flattening bend, said first flattening bend extending from said first opposing faceplate return and said second flattening bend extending from said second faceplate return	This term does not need to be construed	An integrally-formed segment of the flat steel member that is formed at the end of each return by bending the steel member along a linear crease that extends the entire width of the return so that the flattening bend lies in a different plane than the returns

Plaintiff contends that the meaning of the claim term is self-evident, while Defendants argue that a detailed construction is warranted. Defendants, further, seek clarification that the flattening bend does not include a twist, which is a feature of Defendants' allegedly infringing device.

Plaintiff is correct that this language requires no further construction. Where parties dispute a term that has a "plain and ordinary meaning," Finjan, Inc. v. Secure Computing Corp., 626 F.3d 1197, 1207 (Fed. Cir. 2010), as explained in more detail below, "a court has the duty to resolve the parties' claim construction disputes so the issues are not litigated before the jury," see O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., 521 F.3d 1351, 1361 (Fed. Cir. 2008). In some instances, the court may be required to construe commonly understood terms, however, the court may also discharge its duty by rejecting the challenging party's proposed construction. See Finjan, 626 F.3d at 1206-07. For this term, I find that Claim 1's straightforward, structural description requires no construction. The term makes clear, on its face, that the flattening bends extend from the faceplate returns.

6. Embedded Leg

Next, the parties dispute whether the term "embedded leg," found in both Claims 1 and 6, need be construed. Plaintiff argues that it does not, arguing that the words embedded and leg have commonly understood meanings. Defendants, in contrast, argue that a precise construction is required.

Claim(s)	Term to Construe	JVI's Proposed Definition	Defendants' Proposed Definition
----------	------------------	---------------------------	---------------------------------

1, 6	embedded leg	This term does not need to be construed	<p>Embedded - enclosed closely in or as if in a matrix such as concrete</p> <p>Leg - An integrally formed support segment of the flat steel member that has the shape and dimensions resembling a pole or bar and functions to support or prop</p>
------	--------------	---	--

While “[a] court may properly decline to construe a term further if the ordinary meaning of the term is apparent,” Biotec Biologische Naturverpackungen GmbH & Co. KG v. Biocorp, Inc., 249 F.3d 1341, 1349 (Fed. Cir. 2001), the Federal Circuit has warned district courts against leaving critical disputed claim terms unresolved prior to trial. The Federal Circuit gives the following example from its prior case law:

In O2 Micro [International Ltd. v. Beyond Innovation Technology Co., Ltd.], 521 F.3d 1351 (Fed. Cir. 2007), the parties disputed the specific meaning of the claim term “only if” at the Markman hearing. In its Markman order, while acknowledging the parties’ dispute, the court ruled that the term had a well-understood definition and therefore needed no construction. At trial, the “only if” limitation “was a key issue disputed by the parties” and both parties presented explicit arguments to the jury regarding the term’s meaning. In O2 Micro, we held that the district court’s conclusion that the term “only if” need not be construed was wrong because it left the parties’ dispute over the scope of the claim term unresolved and was a question of law that should have been determined by the court and not left to the jury. Thus, we remanded the case to the district court for proper construction of the claim term “only if.”

Verizon Services Corp. v. Cox Fibernet Virginia, Inc., 602 F.3d 1325, 1333-34 (Fed. Cir.

2010). Thus, while I agree with Plaintiffs that “embedded” and “leg” have commonly understood meanings, I nonetheless construe them out of an abundance of caution in order to prevent the subsequent development of a legal issue at trial as the combined term “embedded leg” may be unfamiliar to a jury.

Throughout the specification, the patentees consistently utilize the commonly accepted meaning of embedded. For example, the background section of the specification describes “embedded” reinforced mesh as enclosed in the concrete flanges.

See ’897 Patent, col. 2, lines 1-4. Similarly, in its description of the preferred embodiment, the specification notes that the “embedded” legs are positioned above and below the mesh, which is enclosed in the concrete flange. See id. at col. 4, lines 60-64. These uses of embedded align with the Webster’s Ninth New Collegiate Dictionary definition of embedded as “enclose[d] closely in or as if in a matrix.” Id. at 405. Accordingly, I construe embedded in accordance with its commonly-understood meaning.

The claims and specification also consistently utilizes the commonly accepted meaning of “leg.” Defendants urge the Court to adopt a definition of “leg” references a pole or bar, but the definition of “leg” most appropo here is “a branch of a forked or jointed object.” Webster’s Ninth New Collegiate Dictionary at 682. Claims 1 and 6 describe the embedded leg as substantially perpendicular to the faceplate. Adding more flesh to this generic description, the summary of invention section of the specification describes the embedded legs as opposing branch-like portions of the flange connector that extends away from the faceplate returns and the flattening bends in

such a way as to be positioned above or below the concrete mesh. See '897 Patent, col. 3, lines 1-15. Based upon how the term “leg” is used in the claims and specification, I construe it in accordance with its commonly-understood meaning represented by the aforesaid Webster’s definition: a branch of a forked or jointed object.¹¹

7. “said first embedded leg . . .”

The parties further dispute whether the following “embedded leg” language found in Claim 1 requires construction.

Claim(s)	Term to Construe	JVI’s Proposed Definition	Defendants’ Proposed Definition
1	said first embedded leg extending from said first flattening bend and said second embedded leg extending from said second flattening bend	This term does not need to be construed.	A leg is integrally formed at the end of each flattening bend

While the term “embedded leg” requires construction, I see no basis for adopting Defendants’ proposed construction of the “said first embedded leg . . .” The relevant language in Claim 1 provides in full that: “said first embedded leg extending from said first flattening bend and said second embedded leg extending from said second flattening bend.” This language describes embedded leg structurally, according to its

¹¹ In this connection, I note that Plaintiff relies upon a concession by Defendants’ expert Watry to support its argument that no construction is necessary. I do not based my decision upon this concession; as I have indicated, I do not accord great weight to Mr. Watry’s testimony given his lack of experience with the sort of flange connectors at issue in this litigation.

location relative to other components, rather than functionally, which would be according to the function that the leg performs. See American Piledriving, 637 F.3d 1324, 1334 (Fed. Cir. 2011) (construing similar “extends from” language in this fashion). As this structural description is readily accessible by a jury, and nothing in the claim or specification speaks of the leg being “integrally formed” at the end of the flattening bends, I reject Defendants’ proposed construction.¹² Having rejected Defendants’ proposed construction, there is no need for further explication of the terms.

8. “each said embedded leg . . .”

Further dealing with embedded legs, the parties dispute whether the following additional term found in Claim 1 also warrants construction.

Claim(s)	Term to Construe	JVI’s Proposed Definition	Defendants’ Proposed Definition
1	each said embedded leg being positioned in a plane substantially perpendicular to said faceplate and substantially parallel to said longitudinal axis of said face plate	This term does not need to be construed.	Each leg is a flat segment formed along a linear crease that extends the entire width of the flattening bend so that the leg extends away from the flattening bend and lies in a plane transverse to the plane of the flattening bend

For the reasons explained above, I reject Defendants’ inclusion of the “flat segment,” “linear crease,” and “entire width” limitations. What remains of the Defendants’

¹² For this reason, I do not adopt Defendants’ construction of “leg” which also seeks to incorporate the integrally formed limitation.

proposed construction of this claim term is: “the leg extends away from the flattening bend and lies in a plane transverse to the plane of the flattening bend.” This segment of Defendants’ construction corresponds to the claim language: “the leg being positioned in a plane substantially perpendicular to said faceplate and substantially parallel to said longitudinal axis of said face plate.”

This disputed language does not require construction; with “embedded leg” having been construed, the remaining language is sufficiently definite and clear for the jury to interpret the claim according to its plain and ordinary meaning. Moreover, the “transverse to the plane” language that Defendants seek to import is not rooted in the intrinsic evidence; there is no mention in the specification of the concept “transverse” anywhere in the patent. In this regard, I note that “transverse” and “perpendicular” are not necessarily coextensive in usage; “transverse . . . does not necessarily imply right angles.” Acumed LLC v. Stryker Corp., 483 F.3d 800, 816 (Fed. Cir. 2007) (Moore, J., dissenting). Hence it would be inappropriate to blindly substitute one word for the other without direction from the intrinsic evidence. See Acumed, 483 F.3d at 807 (rejecting construction that limited “transverse” to “perpendicular”). Furthermore, the terms “substantially parallel” and “substantially perpendicular” are made up of commonly-understood words.

In addition, while Defendants suggest that Plaintiff is judicial estopped from arguing contrary to a construction it proposed in the Universal litigation, I decline to apply the doctrine of judicial estoppel here. Plaintiff’s proposed construction in the Universal litigation was “[t]he flattening bends are angled to enable the embedded legs

to be positioned in a plane that is sufficiently perpendicular to the faceplate and parallel to the longitudinal axis of the faceplate to permit significant flexing under vertical shear and tension forces.” See Pl. Resp. Br. , Exh. G at 13.

However, this construction was not adopted by the Universal Court, and only positions that are adopted by a prior court are binding for judicial estoppel purposes. As explained by the U.S. Supreme Court, there are three factors that must be present for judicial estoppel to apply:

First, a party’s later position must be clearly inconsistent with its earlier position. Second, courts regularly inquire whether the party has succeeded in persuading a court to accept that party’s earlier position, so that judicial acceptance of an inconsistent position in a later proceeding would create the perception that either the first or the second court was misled.... A third consideration is whether the party seeking to assert an inconsistent position would derive an unfair advantage or impose an unfair detriment on the opposing party if not estopped.

New Hampshire v. Maine, 532 U.S. 742, 750–51, 121 S.Ct. 1808, 149 L.Ed.2d 968 (2001) (emphasis added). The above factors do not justify judicial estoppel here. Accordingly, I reject Defendants’ proposed construction and conclude that there is no need for further construction of the disputed terms.

9. “said flattening bends . . .”

The parties seek construction of the “said flattening bands . . .” claim term, which follows the “each said embedded leg” language discussed in the preceding section.

Claim(s)	Term to Construe	JVI’s Proposed	Defendants’ Proposed
----------	------------------	----------------	----------------------

		Definition	Definition
1	said flattening bends angled between said faceplate return and said embedded legs to enable said embedded legs to be positioned in the plane	The flattening bends transition the flange connector to position the embedded legs into the required plane	The bends orient one leg in a first plane above the embedded mesh in the concrete and the other leg in a second plane below the mesh

The key difference between the parties' proposed constructions is that Plaintiff's construction uses the term "transition" to explain how the connection between the flattening bends enable the embedded legs to be positioned in the required plane whereas Defendants' construction seeks to add the limitation that the flattening bends place one leg above the concrete mesh and the other below.

Defendants' proposed construction must be rejected. While there is some language in the specification that references an asymmetrical positioning of the legs, that language relates to only one object of the invention. In the summary of the invention, the specification states that "the principal object of the present invention is to provide a flange connector that absorbs the shear force occurring in both the upward and downward direction" '897 Patent, col. 2, lines 43–46. Thereafter, the summary states that "one embedded leg can be positioned above the reinforced mesh and the other embedded leg can be positioned below the reinforced mesh [and] this allows for

the flange connector to absorb the shear forces occurring in both the upward and downward direction.” Id., col. 3, lines 12-17 (emphasis added). As this quote makes clear, the specification teaches that asymmetrical positioning may be present in an embodiment, not that such positioning is required.

Turning to Plaintiff’s proposed construction, I find that it is consistent with the intrinsic evidence. The specification teaches that the

embedded legs are formed from the faceplate returns through flattening bends that span between the embedded legs and the faceplate returns such that the embedded legs can be positioned in a plane substantially parallel to the horizontal surface of the concrete members.

Id., col. 3, lines 1-5. Plaintiff’s proposed construction comports with this language by explaining, in terms accessible to a jury, that the purpose of the flattening bends is to position the embedded legs into the required plane. Hence I adopt that construction here.

10. “to allow said flange connector to flex . . .”

For this disputed term, Plaintiff again contends that no construction is necessary while Defendants argue to the contrary.

Claim(s)	Term to Construe	JVI’s Proposed Definition	Defendants’ Proposed Definition
1	to allow said flange connector to flex under shear and tension forces	This term does not need to be construed.	To allow said flange connector to flex under shear and tension forces in both the upward and downward direction

While the claim language already expressly addresses that the flange connector is designed to flex under shear and tension forces, Defendants seek to further specify that the connector flexes “in both the upward and downward direction.”

I disagree with Defendants that such an importation into Claim 1 is warranted. As explained above, the specification states that “the principal object of the present invention is to provide a flange connector that absorbs the shear force occurring in both the upward and downward direction ...” ’897 Patent, col. 2, lines 43–46. However, this is but one object of the invention—there are two additional objects set forth in the paragraph following the one in which this principal object is expressed. See id. at lines 49-54. Where a limitation relates to one object of several, the Federal Circuit has declined to import that limitation into a claim. See Yoon Ja Kim v. ConAgra Foods, Inc., 465 F.3d 1312, 1319 (Fed. Cir. 2006) (“The mere fact that one object of the invention is to produce a slow acting oxidant which is functional throughout the entire manufacturing process does not mean that this particular feature was adopted as a limitation in each claim of the patent.”). I, accordingly, reject Defendants’ proposed construction.

Furthermore, I agree with Plaintiff that no additional construction is required. While the terms “shear” and “tension” are terms of art in the precast construction industry, the parties do not dispute the meanings of these commonly accepted industry terms. Finally, I note that I see no need to resort to the testimony of Dr. Cleland, as Defendants urge the Court to do, because I find that the intrinsic evidence makes clear that Defendants’ “upward and downward” limitation should not be incorporated into

the claim.

11. “returns extending from the sides of each face plate”

The parties next dispute whether the phrase “returns extending from the sides of each face plate” found in Claim 6 needs construction.

Claim(s)	Term to Construe	JVI’s Proposed Definition	Defendants’ Proposed Definition
6	returns extending from the sides of each face plate	This term does not need to be construed	An integrally formed portion of the flat steel member that is formed at each end of the faceplate along a linear crease that extends the entire width of the faceplate so that the return extends away from the central faceplate portion

Recall that Claim 6 provides:

A flange connector comprising:

a face plate, said faceplate having a longitudinal axis and having returns extending from the sides of each face plate that are angled to allow the face plate to expand under extreme heat;

at least two embedded legs that extend from said face plate return such that the legs initially extend away from said face plate return at an angle and then flatten out in a plane substantially perpendicular to the face plate and substantially parallel to said longitudinal axis of said faceplate.

’897 Patent, Claim 6 (emphasis added).

Here, as with claims discussed supra, Defendants seek to import limitations I have already rejected. In my construction of “flange connector,” I rejected Defendants’ “one-piece steel member” limitation. For the same reasons I rejected that limitation, I likewise reject the “integrally formed” limitation and “steel member” limitation

Defendants seek to incorporate into Claim 6. A person of ordinary skill in the art would not read the specification to require that the faceplate returns be part of a one-piece flange connector, nor that the connector be made of steel. I have also already rejected Defendants' proposed limitation that the returns form along a "linear crease" that spans the "entire width" of the faceplate.

As for Defendants' proposed limitation that "the return extends away from the central faceplate portion," Claim 6 does not describe the faceplate as a "central faceplate" like Claim 1 does. Hence I see no basis for including Defendants' "central faceplate" language in my construction. Indeed, that Claim 6 and Claim 1 differ in this manner suggests, by virtue of the doctrine of claim differentiation, that I should not construe Claim 6 as having a central faceplate. As discussed supra, reading "faceplate" to refer to a "central faceplate" would render the term superfluous in Claim 1. See Andersen Corp. v. Fiber Composites, LLC, 474 F.3d 1361, 1369-70 (Fed. Cir. 2007) (noting that doctrine may apply where the proposed construction would render a claim redundant or superfluous) (citing Tandon Corp. v. U.S. Int'l Trade Comm'n, 831 F.2d 1017, 1023 (Fed. Cir. 1987)). Having rejected Defendants' construction, I conclude that no further construction is necessary. The claim term "returns extending from the sides of each face plate" is an uncomplicated, structural definition whose plain and ordinary meaning is accessible to a jury without additional construction.

12. "returns . . . that are angled to allow the face plate to expand under extreme heat"

The parties dispute whether the following language in Claim 6 requires

construction. While Plaintiff argues that no construction is required, Defendants disagree and, again, urge the Court to adopt a narrowing construction of the angle on the faceplate returns.

Claim(s)	Term to Construe	JVI's Proposed Definition	Defendants' Proposed Definition
6	returns . . . that are angled to allow the face plate to expand under extreme heat	This term does not need to be construed	The returns form a constant angle of approximately ninety degrees (90°) along the entire width of the return as measured at any point along the intersection between either the interior or exterior surfaces of the faceplate and the return

I reject Defendants' proposed construction. As with my constructions discussed supra, there is no basis for concluding that the angle of the faceplate returns must run consistently along the entire width of the returns. Defendants, further, urge the Court to incorporate the ninety degree angle requirement into Claim 6 although, unlike Claim 1, the claim does not specifically define the faceplate return angle. As to this argument, the doctrine of claim differentiation suggests that the ninety degree limitation found in Claim 1 should not be read into Claim 6: "different words or phrases used in separate claims are presumed to indicate that the claims have different meanings and scope." Seachange Int'l, Inc. v. C-COR Inc., 413 F.3d 1361, 1368–1369 (Fed. Cir. 2005).

Plaintiff argues that no further construction of the "returns . . . that are angled to allow the face plate to expand under extreme heat" term is required because the sort

of angle that the disputed term contemplates would be clear to a person skilled in the art without the benefit of additional construction. In this regard, I note that the specification makes clear that the forty-five degree angle found in prior art is disfavored because such an angle “function[s] to compress the faceplate, thereby making it difficult for the faceplate to expand” ’897 Patent, col. 2, lines 33-38. But this language suggests only that the angle should not be a forty-five degree angle—it does not specify whether the angle should be a fifty degree, or seventy-five degree angle. In short, there is little guidance in the specification that would inform a person skilled in the art about what degree should be employed to enable the invention.

Accordingly, I turn to the parties’ experts for additional guidance on whether a person of ordinary skill in the art could interpret the claim language as stated. On this point, the parties’ experts present competing and irreconcilable opinions. Dr. Naito, Plaintiff’s expert, states in his report that a person of ordinary skill in the art “would understand that the phrase . . . refers to making the angle deep enough that the bend is sufficiently weak to reduce concrete breakout ...” Naito Rep., ¶¶ 52. Conversely, Mr. Sample, Defendants’ expert, states in his report that a constant ninety-degree angle is required: “In order for the faceplate returns to allow the faceplate to expand there must be a uniform 90 degree bend between [the] faceplate and [the] faceplate return to create a wear plane.” Sample Rep. at 5. Neither expert points to additional extrinsic evidence to support their competing views, hence, neither opinion is particularly helpful to the Court.

Considering the patentee’s clear choice to seek broad coverage through Claim

6's expansive language, the doctrine of claim differentiation, and considering the lack of helpful extrinsic evidence before the Court or an alternate construction posed by Plaintiff, I conclude that there is no basis for the Court to further construe the Claim 6 language. In reaching this conclusion, I am cognizant that the Federal Circuit has directed lower courts not to leave the scope of the claim term unresolved and, thereby, present a question of law to the jury. See Verizon, 602 F.3d at 1333-34 (discussing O2). However, as explained below, the question of the scope of this term is better resolved through an indefiniteness or enablement challenge at a subsequent pre-trial stage in these proceedings.

Defendants argue that I must further construe the disputed term in this Markman hearing because it lacks the specificity required by the indefiniteness statute—35 U.S.C. § 112. That statute reads:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

Id. at § 112(a). With regard to this statute, the Federal Circuit has held that the “determination of claim indefiniteness is a legal conclusion that is drawn from the court’s performance of its duty as the construer of patent claims.” Exxon Research and Eng'g Co. v. United States, 265 F.3d 1371, 1376 (Fed. Cir. 2001) (quoting Personalized Media Commc'ns, LLC v. Int'l Trade Com'n, 161 F.3d 696, 705 (Fed. Cir. 1998); see Wellman, Inc. v. Eastman Chemical Co., 642 F.3d 1355, 1365 (Fed. Cir. 2011) (“The

review of indefiniteness under 35 U.S.C. § 112, paragraph 2, proceeds as a question of law without deference.”)

However, many courts consider questions of indefiniteness on summary judgment following a Markman hearing and with the benefit of extrinsic evidence directed to that inquiry. See, e.g., Streck, Inc. v. Research & Diagnostic Systems, Inc., 665 F.3d 1269, 1277 (Fed. Cir. 2012) (noting that district court addressed invalidity and enablement challenges on summary judgment several months after claim construction opinion issued); Schering Corp. v. Mylan Pharmaceuticals, Inc., Civil Action No. 09-6383 (JLL), 2011 WL 3736503, *5-6 (D.N.J., Aug. 22, 2011) (addressing indefiniteness challenge in context of post-Markman summary judgment). But see Waddington North American, Inc. v. Sabert Corp., Civil Action No. 09-4883 (GEB), 2010 WL 4363137, *10 (D.N.J., Oct. 27, 2010) (conducting indefiniteness inquiry in Markman opinion). Accordingly, I do not find it best to rule upon Defendants’ indefiniteness challenge at this juncture in the proceedings.

While I do not rule upon Defendants’ indefiniteness challenge today, the challenge appears to be a mechanism by which the Court may later address whether the disputed term is sufficiently circumscribed to be submitted to a jury. In addition, by arguing that the disputed term requires no construction, Plaintiff has essentially sought a very broad construction of Claim 6 that may also open itself up to an enablement¹³ challenge later in this suit. Indeed, the Federal Circuit has noted, in a

¹³ Per the enablement inquiry, courts focus on whether the specification enables “one of ordinary skill in the art to practice the claimed invention without

case where a patentee sought a broad construction but was later unable to demonstrate that its invention was enabled:

The irony of this situation is that Liebel successfully pressed to have its claims include a jacketless system, but, having won that battle, it then had to show that such a claim was fully enabled, a challenge it could not meet.

Automotive Technologies Intern., Inc. v. BMW of North America, Inc., 501 F.3d 1274 (Fed. Cir. 2007) (quoting Liebel-Flarsheim Co. v. Medrad, Inc., 481 F.3d 1390 (Fed. Cir. 2007)). In sum, I do not construe the “returns . . . that are angled to allow the face plate to expand under extreme heat” term here, and leave open whether Plaintiff will be able to withstand the indefiniteness and enablement challenges that may be pursued by Defendants.

13. “at least two embedded legs that extend . . .”

Here, again, the parties dispute whether construction is required. This Claim 6 language is similar to the embedded leg terms in Claim 1, such as the term “said first embedded leg extending from said first flattening bend and said second embedded leg extending from said second flattening bend.” Claim 6 differs from Claim 1 in that the latter does not include flattening bends. Plaintiff argues, as it did with the Claim 1 language, that this term need not be construed, while Defendants argue for a very specific construction full of various limitations.

undue experimentation.” Transocean Offshore Deepwater Drilling, Inc. v. Maersk Contractors USA, Inc., 617 F.3d 1296, 1305 (Fed. Cir. 2010) (quoting Nat'l Recovery Techs., Inc. v. Magnetic Separation Sys., Inc., 166 F.3d 1190, 1196 (Fed. Cir. 1999) (internal quotation marks omitted)).

Claim(s)	Term to Construe	JVI's Proposed Definition	Defendants' Proposed Definition
6	at least two embedded legs that extend from said face plate return such that the legs initially extend away from said face plate return at an angle	This term does not need to be construed	A leg is formed at the end of each return along a first linear crease that extends the entire width of the return so that a first leg portion extends away from the return at a first angle that is constant along the entire width of the return as measured at any point along the intersection between either the interior or exterior surfaces of the return and the first segment of the leg

As is apparent from even a cursory review of Defendants' proposed construction, the Court has rejected each of the proposed limitation elsewhere in this lengthy opinion. I need not repeat my reasons for those rejections here. And, although Claim 6 does not include the flattening bend language found in Claim 1, my analysis of the similar Claim 1 embedded leg terms nonetheless attends here. Accordingly, for the reasons expressed above, I likewise conclude that this disputed term need not be construed.

14. "the legs . . . then flatten out . . ."

Finally, the parties dispute whether the following Claim 6 language requires construction.

Claim(s)	Term to Construe	JVI's Proposed Definition	Defendants' Proposed Definition
6	the legs . . . then flatten out in a plane substantially perpendicular to	This term does not need to be construed.	The leg is formed along a second linear crease so that a second leg portion extends away from the first leg portion at a second angle that is

	the face plate and substantially parallel to said longitudinal axis of said faceplate		constant along the entire width of the first leg portion as measured at any point along the intersection between either the interior or exterior surfaces of the first and second leg portions, where the plane of one leg is above the embedded mesh in the concrete and the plane of the other leg is below the mesh.
--	---	--	---

Defendants' proposed construction for this term also incorporates limitations already rejected by the Court for the reasons stated herein. My analysis in connection with the above-referenced claim terms apply with equal force to this disputed term. Therefore, I conclude that this final term also need not be construed.

IV. CONCLUSION

For the foregoing reasons, the Court construes the disputed claim terms as follows:

Claim(s)	Term to Construe	Court's Construction
1, 6	flange connector	A tool that is used to connect adjacent precast, concrete structures
1, 6	central faceplate / faceplate	a flat segment of the flange connector that has some portion exposed for welding
1	faceplate return	The portions of the flange connector that extend from the faceplate.

1	each said faceplate return extending from said central faceplate at approximately ninety degree (90°) angles from said faceplate	two segments that extend at approximately 90 degree angles from opposite ends the faceplate
1	a first and second flattening bend, said first flattening bend extending from said first opposing faceplate return and said second flattening bend extending from said second faceplate return	This term does not need to be construed
1, 6	embedded leg	Embedded - enclosed closely in or as if in a matrix Leg - a branch of a forked or jointed object.
1	said first embedded leg extending from said first flattening bend and said second embedded leg extending from said second flattening bend	This term does not need to be construed.
1	each said embedded leg being positioned in a plane substantially perpendicular to said faceplate and substantially parallel to said longitudinal axis of said face plate	This term does not need to be construed.
1	said flattening bends angled between said faceplate return and said embedded legs to	The flattening bends transition the flange connector to position the embedded legs into the required plane

	enable said embedded legs to be positioned in the plane	
1	to allow said flange connector to flex under shear and tension forces	This term does not need to be construed.
6	returns extending from the sides of each face plate	This term does not need to be construed
6	returns . . . that are angled to allow the face plate to expand under extreme heat	This term does not need to be construed
6	at least two embedded legs that extend from said face plate return such that the legs initially extend away from said face plate return at an angle	This term does not need to be construed
6	the legs . . . then flatten out in a plane substantially perpendicular to the face plate and substantially parallel to said longitudinal axis of said faceplate	This term does not need to be construed.

Dated: December 26, 2012

/s/ Freda L. Wolfson
FREDA L. WOLFSON, U.S.D.J.